FESSENDEN'S

SILK MANUAL,

AND

PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. I. BOSTON, OCTOBER, 1835. NO. 6.

PUBLISHED MONTHLY BY

GEORGE C. BARRETT,

51 & 52 North Market St., at the N. E. Farmer Office.

T. G. FESSENDEN—Editor.

Fifty cents per year—twelve copies for five dollars—always in advance.

☞ Postmasters and Agents allowed 10 per cent on all subscribers.

BOSTON, OCTOBER, 1835.

FACTS AND OBSERVATIONS RELATIVE TO THE CULTURE OF SILK.

On Reeling Silk.—"The cocoons, or produce of the worms, as soon as completed, are either reeled off or sold to others to be reeled. The silk as formed by the worm is so fine, that if each ball or cocoon was reeled separately, it would be entirely unfit for the purposes of the manufacturer. In the reeling therefore, after the cocoons are cleared from the floss, the ends of several are joined and reeled together out of warm water, which, softening their natural gum, makes them stick together so as to form one strong smooth thread. As often as any single thread breaks or comes to an end, its place is supplied by a new one, so that by continually keeping up the same number, the united thread may be wound to any length. The single threads of the newly added cocoons are not joined by any tie, but simply laid on the main thread, to which they adhere by their gum; and their ends are so fine as not to cause the least perceptible unevenness in the place where they are laid on. Care should be taken in the operation that the silk when reeled off may consist of a smooth thread of equal thickness and strength, not flat, but of a round form, having the small threads of which it is composed as equally stretched and firmly united as possible, and that the several rounds as they lie on the reel should not be glued together. When the skein is quite dry it is taken off the reel, and a tie is made with some of the refuse silk on that part of the skein where it bore upon the bar of the reel, and another tie on the opposite part of the skein, after which it is doubled into a hank, and usually tied round near the extremity, when it is laid by for use or sale."—*Loudon.*

Mr Kenrick, in his *Silk Grower's Guide*, asserts that "the use of the reel requires dexterity and practice. The cocoons, after being cleared of floss, are thrown by handsfull into basins of pure soft water, placed over small furnaces of charcoal fires. When the water is almost at boiling point, sink the cocoon with a whisk of broom corn under water for two or three minutes, to soften the gum and loosen the fibre. Then moving the whisk lightly, the filaments will adhere to it, and may be drawn off till the flossy silk is unwound, and the fine silk comes off. A sufficient number being collected, the reeling begins. If the pods leap upwards, the reel must be slackened; if the silk comes off in bars, you must turn faster; if the water is too hot, they furze in unwinding, and the fine lustre of white silk is injured, and cold water must be added. It requires long practice dexterously to attend to the splicing on the fibres, to keep up an even thread, as the silk grows continually finer to the end of the cocoon."

Mr Cobb, in giving the "Method of reeling cocoons and manufacturing silk in Connecticut," states that "a large kettle set in a furnace, or in an arch, is filled with water, and fire is kept under it; and when it is about to boil a quart of cocoons is thrown into it," &c.; and after describing other preparatory measures, he says, "Reeling is then commenced on a common hand reel (such as in

common use in families in New England for reeling yarn from the spinning wheel), and the silk fibres run off about as fast and with as little difficulty as yarn from a spindle. Some of the cocoons run off before others, and when on this account the thread becomes too small, all the fibres are broken off, and what is reeled is tied by itself on the reel, and another quart is then thrown into the kettle; the ends are collected and reeled in the same way as before, and each separate piece is tied by itself. When the reel is full, the pieces are all tied together, taken off, and immediately dried."

Temperature of the Water in which Cocoons are immersed for Reeling.—This is a point of much importance. If the water is made to boil, it will soon destroy the cocoons; and if it be not sufficiently heated, it will not dissolve the glutinous matter with which the silk of the cocoons is combined. In the Manual of Mr Rush it is observed that, "Instead of using a common stove or furnace to heat water for the cocoons, steam has been proposed and used by Messrs Gensoul and Aldini. Upon the plan of the first, the steam is admitted directly into the water containing the cocoons intended to be reeled; but the last adopts another mode, which, upon a large scale, is certainly to be preferred. A copper boiler, covered, and with a hollow bottom, has a vertical tube adapted to the centre of the cover, with a cock, by means of which the water intended to furnish the steam is admitted. This boiler will hold four pints (French),* and at the beginning of the process it is to be filled to nearly two thirds. The vertical cylinder has a tube with a cock, through which the steam is introduced into a wooden tub, placed on its side, to the external surface of a vase above it, and gives out steam at its extremity through a series of small holes, turned toward the bottom of the vase; the holes are to avoid the inconvenience arising from the too rapid escape of the steam. This vase is of copper, and contains six pints of water. The steam box is tinned on the bottom inside, and a little inclined to the side of the boiler, with which it communicates by a tube, with a cock, conveying back the condensed steam to the bottom of the boiler. Thus the water into which the cocoons are put, is regularly and permanently heated, without the injurious ebullition of the water which takes place when steam is introduced directly into it, and which causes the rapid and irregular motion of the cocoons in the basin."

The Editor of this paper has invented an apparatus for heating cocoons for reeling, of which he hopes hereafter to give a definite description. He will now merely state some of its objects, principles and advantages. It is a boiler set in a cylinder stove, and surmounted by a vessel for heating by steam, inclosing another vessel holding the water in which cocoons are immersed for reeling. These vessels are both placed perpendicularly over the cylinder and boiler; and the whole apparatus occupies no more *ground room*, or space on the floor on which it is placed, than a common cylinder stove of a foot diameter. Its advantages are that wood or any other fuel, including the hardest anthracite, may be burnt, and the smoke or gas carried off instead of being diffused in the room, and inhaled by the reeler, as is the case when clay furnaces are used. It will diffuse a pleasant and healthful warmth in the room while heating the cocoons, and that without near so much fuel as would be necessary to produce the same temperature by a common cylinder stove of the same size not surmounted by the apparatus for heating cocoons.

The cocoons are placed in a situation tantamount to what chemists call a water-bath, in which the water can never be made to boil, so as to injure or destroy the cocoons.

The apparatus in which the cocoons are heated may be made to answer for evaporating decoctions, to obtain extracts in a thick, gummy or dry state, without the possibility of burning or injuring the substances by boiling or by too much heat; and the cocoon heater may be easily removed, and the boiler used for common culinary purposes.

It has been thought by good judges (although the experiment has never been tried) that this apparatus, with or without some alterations, will answer a valuable purpose for killing the chrysalis or insect in the cocoons, and drying them for use. But of this more in our next.

---

* A French pint is a quart American measure.

[For the Practical Farmer.]

SILK MANUFACTURE.

The subject of raising and manufacturing silk has been laid before the public so many times and in so many different shapes, that sufficient information has been elicited to prove the practicability and certainty of our being able to raise silk, and manufacture various silk fabrics, which can successfully compete with silks of any clime. And why should we not? The enterprise and researches of our citizens have stripped from the process of manufacturing all the mystification with which European policy, and our own prejudice had clothed it; so that it now appears a simple and easy process. Samples of beautiful silk have already been produced here, and when practice shall have been added, we may challenge rivalship with the most expert Europeans. Enough has been shown to convince any business man that this branch of industry will be exceedingly profitable. In fact, companies have been formed in several of the States for the sole purpose of manufacturing silk; and are making preparations to commence the business immediately. Most of those concerned in these companies are practical, calculating, business men, showing by the best possible argument that the business is considered safe. There are, however, a great many intelligent men who doubt the utility of our engaging in this braneh of the business at present. But why do they doubt? Because it is new, and nearly all that they have heretofore heard has been to discourage any attempt of the kind. It would seem from the tone of J. D'Homergue's essays, that America could make no advances in the manufacture of silk, unless she followed closely in the step of Europeans.

Since these essays were first published, those interested in the subject have been looking forward with confidence to the time, when our ingenious countrymen should refute the insinuations of D'Homergue by commencing the manufacture of silk in their own way. Our intelligent mechanics have been laboring assiduously to construct machinery for that purpose: they have succeeded. Machinery differing almost wholly from any in Europe, and admirably adapted for the purpose for which it is intended, is already in successful operation, under the direction of the *Valentine Silk Company*, and at other places. Samples of goods produced by these machines are in the market, and are beautiful specimens of what American genius can accomplish.

The business is destined to become a great source of profit to the people of this country, and especially to those of New England, where free and willing hands, and intelligent minds, will master all that is complex in it.

The legislatures of the different States feel the importance of this subject, and ours, with a commendable spirit, at its last session passed a resolve, allowing 50 cents per pound on all silk reeled or thrown within the Commonwealth.

The culture of cotton was introduced into this country in 1785. The manufacture of it was not commenced until a number of years after; not a half century has elapsed, yet how vast and important has it become to our whole country. If the manufacture of cotton has risen to such a degree of prosperity in so short a time, will not the manufacture of silk be of much greater importance in less time? Yes: because the facilities for obtaining the raw article are greater, and the process of manufacturing equally easy; besides, while the climate adapted to the growth of cotton is confined to the Southern States, that adapted to the production of silk is extended over nearly our whole territory.

A writer, when speaking of this subject (the manufacture of silk), says, "It is observed that all those countries that produce the best silk border upon the sea. Our country (meaning the United States) will produce the best of silk, and as fit for organzine as any in the world; and, if attended to, will be of as great advantage as any in the States, for, as I have already observed, the manufacture of silk is a most profitable undertaking, where the land and air are proper for raising it." C.

THE MORUS ALBA, OR WHITE ITALIAN MULBERRY.—The Baltimore Farmer and Gardener states, that "in order to make 'assurance doubly sure,' he would recommend to persons who have sown seed of this tree, the present season, to cover their plant beds as soon as winter sets in, either with straw, or long stable manure, to be confined by a slight covering of small brushwood, which should be permitted to remain on the beds until about the middle of April, when it should be gradually removed, so as not to expose the plants too suddenly to the changes of the weather at that unsettled season of the year. This precaution will not be necessary after the first winter." The seed of this mulberry may be had of Robert Sinclair, Jr. in Baltimore, which the editors of the Farmer and Gardener recommend, "as being fresh, having seen some of it tried, and sprouted in about 36 hours."—*Hampshire Gaz.*

SILK COMPANY.—We learn that another Silk Company has beer. formed in this city, and has purchased a spot for the location of their establishment at Woburn, on the Lowell Railroad. It contains 280 acres, and cost about $15,000.—*Norfolk Advertiser.*

[From the Southern Agriculturist.]

On the diseases of Trees, and methods of Cure.

When it is observed of a tree, that it does not shoot forth, we are certain that it is either punctured to the liber or white bark, or that it is deficient in nourishment from the poverty of the earth, in which it is planted, that will in time prove its destruction. The remedy is to lay bare the roots in the month of November, for three feet around the tree, and put in three or four baskets of well rotted cow manure; throw upon this three or four buckets of water to force the manure amongst the roots, after which fill up the hole with the same earth that was taken out of it; the roots becoming refreshed, throw out new fibres, and the year after the tree will be seen shooting forth its green foliage again. If the summer is very dry you must throw two buckets of water around it from time to time. The winter following, in trimming the trees you must not leave as many branches as on those that have always been in good health.—Trees of every description are cured in this manner.

Bad soil.—Fruit trees accommodate themselves more to warm light earth than to that which is cold and wet.

Diseased roots.—Frequently a tree, all of a sudden, after having thriven many years, will become weak and languid: this arises from the roots becoming rotten from having been planted too deep, from the many fibres, from humidity or otherwise. This is easily remedied by laying bare the roots in autumn, and cutting off such as are decayed, up to the sound wood.

Exhausted earth.—If the tree languishes in its sound roots, the malady arises from the earth being too much exhausted. To reanimate it, remove the exhausted earth and replace it with new; afterwards throw around the foot of the tree two good baskets of cow manure, if the earth is warm, or that of the horse if it is cold, and when the time arrives to trim it, cut out the old wood. If it does not shoot forth well the succeeding year, it ought then to be dug up and thrown away.

To regenerate old trees.—When you have in your garden a very old tree, whose branches on the right and left indicate dying, you may calculate the cause to be in the roots: it wants nourishment, and the earth about its feet is too old, exhausted and dry. To give it again health and vigor, lay bare the roots in the month of November, for four feet square all around them so as not to injure them; afterwards throw five or six baskets of well rotted cow manure above the roots, the fall and winter rains will decompose it; if the winter is dry, you must water it, in order that the liquor of the manure may become a kind of pus to nourish the roots; the sap will begin to flow, and the earth and tree revive. In the month of February, cut the old branches to the body of the tree covering the wound so as to prevent either rain or the sun from doing any injury. After the first year, the branches will be three feet; and, if it is a tree which ought to be trimmed, the winter after trim the branches a foot long. This manner of resuscitating all kinds of trees is excellent.

Trees diseased on one side only.—If a tree is diseased on one side and vigorous on the other, lay the roots entirely bare, remove the diseased part, and cut the larger roots in order to make the tree equal, and the circulation of the sap more general; put new earth above the roots, even if they should not be unhealthy, and two or three baskets of manure as above.

When you trim this tree, leave the vigorous side long, and you must leave all the fruit branches, even the weakest, so as to draw the sap: trim very close the diseased side; cut off all useless branches, and leave a few fruit branches.

Yellow leaves.—This disease arises often from the same cause as that of the disease last spoken of, that is to say, exhausted earth. In such case administer new earth mixed with manure reduced nearly to that of common earth; or, without entirely uncovering the roots, with ashes and soot, these materials are very good for light earths. When the ground is cold, pigeon dung is very good, particularly where it has been in a heap for two years, to ameliorate its strong heat; spread it an inch deep about the foot of the tree, and in the month of March following bury it. For the want of this dung, you must take away the old earth from around the tree and replace it with new, mixed with fine well rotted horse manure. If the yellowness arises from the earth being damp, take horse-dung mixed with water, so as to form a kind of pap, make a trench around the foot of the tree, pour in the mixture, cover it, and let it thus remain: it will reanimate it. If the yellow leaves arise from a contrary cause, that is, from the soil being too light and dry, you must as soon as the month of November arrives uncover the roots, and put above them the scrapings or settlings of a pool, well-drained, worn out, and exhausted street mud; hog-dung or other similar manure: these simple and easy means will resuscitate them.

A tree often becomes yellow from having given too much fruit, and exhausting its substance. In this case you must pull off a part of the fruit, and apply fresh nourishment to the roots.

When a tree appears to languish, make a circle around the foot of it, in which you must put any convenient manure; in trimming it, cut off all superfluous wood, and after having filled up the hole in which you have put the manure, leave nature to act, and she will resuscitate it soon. In digging around the tree, keep off at from two to

four feet distance, observing as you approach the tree to dig carefully around the mound in which the roots are formed.

Sterility.—Open the earth about the foot of the tree, cut off the extremities of the large roots, shorten those that are too long or far off, and all the small ones near the trunk; throw good new earth upon them and cover them up.

Means to produce fruit from trees which flourish well, but whose fruit becomes blighted almost every year.—There are some trees which are charming to the sight when in blossom, but which retain none of their fruit: in this case, at least six buckets of water thrown around them when in full bloom, will answer a good purpose. If you have not so much water, you may refreshen the tree by sprinkling the buds. When the fall of the blossoms is in too great an abundance, bleed the tree or prune the roots.

Inertness of the sap.—In very cold and dry summers in which there is not much rain, it happens that the sap ceases to flow by degrees. You will then see a great portion of the fruit, particularly peaches, which have the most need of a large stock of sap to acquire maturity, fall or prove abortive. The only remedy in this case is to open around the foot of the tree, and to throw in a bucket of water to open the pores and revive the sap, which will prove well that watering and vigilance are necessary in gardening.

When the spring is dry and cold, it happens often that a peach tree does not shed its blossoms, the flower attaching itself to the small nut of the peach, dries it up, and makes it fall; to remedy this, you must bare the roots and throw in buckets of water, and when it is dried up, cover them again with earth, and continue watering them every week during the months of March and April, until you find the fruit safe and well grown; this raises the sap and saves the fruit; it is good to water freely peach and apricot trees during the great heat of summer, and above all, when the fruit is approaching to maturity. When the fruit is well grown, the tree must be thinned of those that are superabundant, which not only makes the fruit grow larger but better, it also preserves the vigor of the tree, which would become ruined in two or three years, if you do not proportion the fruit to the strength of the tree. Peaches, nectarines, and apricots, must be thinned in May. Only a few fruit must be suffered to remain on the weak branches.

When the heat is great and a continual drought, at the end of July, and during the month of August, it is good to throw around the foot of the tree, and particularly the peach, a bucket or half bucket of water, so as to rouse the sap and prevent the fruit from falling half ripe. When you observe the tree languish, and the fruit advance very slowly and fall in great numbers, you may be sure it is in the sap; you must then put water to the foot of the tree, for which purpose you must make a trench around it at a short distance, so that the water may be better held, cover the earth with leaves or straw, and throw water on it, so as to enable the earth to preserve its freshness.

To give fruit a fine color, about the end of June clip with a scissors those leaves that surround the fruit, and when they have grown nearly to their size, remove all their leaves from around them, so that the dew, rain and sun may penetrate, paying attention to the soil, the weather, and the strength of the fruit, for delicate fruit becomes scorched if laid bare too soon, and if too late, will remain without color and taste. Peaches and apricots should be laid bare only fifteen days previous to their being ripe, otherwise the fruit would become defective and imperfect about the stone. By jetting water with a syringe upon fruit exposed to the sun two or three times a day, you will give it a peculiar and curious color, but at the same time impair the quality.

When the severity of the heat occasions the fruit to fall, instead of watering, dig round the roots two inches deep, which fill up with the ashes of wood, and to prevent the wind from blowing it away, cover this ashes with earth.

Peach and apricot trees are liable to what is termed the blight, which is an injury that shows itself by the leaves becoming crimped, shrivelled, dull and yellow, they fall about the first rain; you have nothing to do but first to remove all the blighted leaves, so that the new foliage of the succeeding spring by force of the sap of those which have been blighted, come quicker.

To remove gum you must with a proper instrument cut down to the inner part of the tree, and cover the wound with dry earth tied on with a cloth.

This is the general method of treating diseased trees in France, which from similarity of climate with that of this country, will apply here. Many persons believe it to be only necessary to plant a tree, and that nature will do all the rest. It is true, we must depend upon nature for the success of our endeavors; but we must recollect that the fruit trees we cultivate, are not indigenous to this climate, and that our want of skill and judgment in planting and nourishing them, may embarrass the operations of nature in bringing the fruit to perfection. It becomes necessary, therefore, to ensure success, that we should aid nature in her operations, by removing all obstructions to her efforts, and furnishing the proper attention and nourishment for the prosperity of the tree. In order to effect this, observation and experiments are necessary; and ordinary care and attention to

the method prescribed above, will be sufficient to accomplish our purpose.

How much, then, is to be deprecated that want of zeal, which is so clearly manifested in this section of the country in relation to the cultivation and care of fruit trees. Providence has peculiarly blessed us with the means of indulging in most of the luxuries enjoyed by other sections of the globe, but our apathy appears to have created a total disregard to her munificent blessings in this respect. There is no spot on earth where most of the stone fruit of other climes, could be cultivated in more perfection than in this State. The diversity of soil produces diversity of fruit, and although, on Charleston Neck, peaches and nectarines are destroyed by various insects, yet, all kinds of plums and cherries may be raised in great perfection: some of the latter raised there by Mr Michel, are equal in every respect to any ever produced in a more northern climate. Cultivators instead of importing and increasing the fine plums of France, appear to be satisfied with the miserable trash that grow unheeded and uncared for in thickets. This negligence is reprehensible and ought to be corrected. A FRENCHMAN.

[From the Baltimore Farmer.]

DIRECTIONS

FOR SOWING THE SEED AND RAISING THE PLANTS OF THE WHITE ITALIAN MULBERRY TREE.

1. To sow an ounce of seed, prepare a bed 50 feet long and 4 feet broad. Manure it *well* with a compost composed of one third ashes, and one third decomposed leaves from the woods, or garden mould; dig *deep*, pulverise finely, and then lay the bed off in drills 12 inches apart, one fourth or one half of an inch deep; sow the seed as thick as you would onions or parsnips; cover with rich mould, press the mould down gently, but sufficiently to cause the seed to come into contact with the earth; and should the weather be dry, water the seed bed every other evening, it will assist in promoting the germination of the seed and vigorous growth of the plant.

2. Keep the beds clean of weeds; and should they receive an occasional watering with suds or soot and water, say once a week after they are up, if planted this month, August, they will be fit to transplant into nursery rows in April next, or if not desirable to be so removed, they may be permitted to remain until the ensuing spring, care being taken to keep the bed clean of weeds, the earth stirred and watered in dry seasons.

3. The second year, if not removed before, the plants must be removed into the nursery rows, which must be prepared as for any other crop. The ragged roots being taken off and the tap root shortened, the plants must be planted out twelve inches apart in rows three feet apart, the earth to be well trodden around the plant. As before, the earth must be kept open and free from weeds.

4. At two years old the plants may be planted out into hedges, at 18 inches apart, in rows six feet wide. The ground should be prepared as before directed and some good rich mould put into the holes to be pressed around the plant. If intended to be planted out as standard trees, 20 feet square apart would be a good distance; but in that case the plants should not be transplanted until they are about an inch in diameter. In either case they will require trimming and topping, and if kept as hedges should be treated as other hedges are. ROBERT SINCLAIR, Jr.

AMERICAN SILK.

We have received a sample of exquisitely beautiful silk, produced on the farm of E. Goodrich, Esq. of Hartford, Conn. which we design to exhibit at the anniversary of the State Agricultural Society. The sample was reeled on the Italian reel. It is worth from five to six dollars per lb. A young girl, after one day's practice, can reel a pound per day.

Mr Goodrich, we believe, has planted out more mulberry trees than any other person in the United States; and while we tender to him our thanks for the beautiful specimen of silk which he has sent us, we cannot be unmindful of his ability, nor can we doubt his willingness, to lay us and the public under still greater obligations, by communicating for the Cultivator, some results of his experience and observation in the silk business. Under these impressions, we respectfully solicit from Mr G., in behalf of the public as well as of ourselves, answers to the following queries, and such other information upon this interesting subject as he may please to communicate.

1. Can the silk business be profitably managed by the generality of farmers — or by any particular and what class of them?

2. What is the nature of the bounty offered by the state of Connecticut for the cultivation of silk, and its probable advantages or disadvantages?

3. Does there promise to be a ready and permanent market for cocoons — and can the reeling process be managed with economy and profit by the cultivator?—*Cultivator.*

RAISING COCOONS.

The Silk business will be best prosecuted in this country by having it systematized as in France and Italy. Raising the cocoons is one branch, and not an expensive but rather a simple process. Mulberry trees can be had at a trifling cost, and when two or three years old, will furnish abundant food for worms. They need occupy no

ground which could be appropriated to other uses. They can be planted by the side of fences in rows all about a farmer's homestead. Even planted so close as to form an impervious and beautiful hedge, a valuable substitute for wooden fences.

When the worms are hatched from the eggs a portion of the barn or wood house can be appropriated to feeding them. About six weeks only are occupied in the process, and the leaves can be plucked and all needed attentions given the worms by young boys or girls with very little experience. After the feeding is over, and they begin to wind their cocoons, they require no further attention. The work is infinitely more agreeable, as well as lucrative than the sedentary employment of covering buttons, or even working at palm-leaf hats or straw-braiding.

When the cocoons are wound, they can find a ready cash market. The large establishments which are coming into existence in this country, both for raising worms and winding and weaving the Silk, will consume more than can be had for twenty years. In France and Italy the leaves are furnished by one class of persons, another buys them and feeds the worms, while others purchase the cocoons and wind them for a fourth class, who manufacture the silk. Cocoons are sold as most other commodities are, carried into market by the peasantry every morning, where purchasers are ever ready to secure a good article. We earnestly urge upon every farmer to plant mulberry trees, and furnish a healthful and lucrative employment for his little ones.—*Northampton Cour.*

Silk.—We were shown yesterday a piece of Silk of fine texture and durable fabric, just cut from the loom in the Silk Works of Mr Joseph Rotch, in this town. Mr R. uses Mr Gay's improved machinery, and his establishment now in successful operation offers to our agriculturists a ready market for silk cocoons in any quantity in which they can be supplied. We learn that this establishment is only second to one in Providence yet in operation in this country, and it is the intention of the proprietor considerably to enlarge its operations as soon as the necessary supply of cocoons can be relied upon.—*N. Bed. Mer.*

Hints to farmers.—Never feed potatoes to stock without boiling or steaming, as this increases their nutritive qualities.

One bushel flax-seed, ground with eight bushels of oats, is better for horses than sixteen bushels of oats alone, and will effectually destroy the bots.

Never burn all dry wood in your fire place, nor use a fire place when you can get a stove.

Cut your trees for rails in February, as they are most durable.

Never dew rot your flax, unless you wish to render it worthless.

Never select your seed corn from the crib but from the stalk.

Never feed out your best potatoes and plant the refuse, nor sell your best sheep and keep the poorest.

A fat ox is worth more than a poor horse, and does not eat as much — a yoke and chain can be bought for less money than a wagon harness.

Stealing fruit We are among the admirers of General Smith's sentiment, lately given at the Baltimore Exchange, when the mob were styled fellow citizens. "Fellow citizens!" exclaimed the indignant veteran, "the man that plunders the house of my neighbor is *not* my fellow citizen." Now we would inquire if the sentiment might not be extended a little further, so as to include the marauder who plunders his neighbor's fruit? and for whom the laws of this land have prescribed fine and imprisonment.

This summer, two youngsters have been shot in this district during their attempts at stealing fruit. For the first, an apology was made in the newspaper that he was only in a frolic; and we regret that any countryman of ours, having the control of a *press*, should have no higher standard of morality than to offer such a plea in vindication.

"If a plunderer comes into my garden," said a friend of ours to a learned judge, "how ought I to proceed?" "You are to defend your property," was the reply. "Arrest him on the spot; and if this cannot be done peaceably, you are authorized to do it forcibly. If you use no unnecessary severity you will be justified."

Mammoth cheese. We are informed that Col. Thomas S. Meacham, of Richland, Oswego co. who keeps 154 cows and has made this season 300 cheese weighing 125 lbs. each, has made one weighing *fourteen hundred pounds*, which he intends to present to the President of the U. S. He has also made several, weighing *eight hundred pounds* each, one of which he intends for the Vice President, one for Gov. Marcy, and one for each of the cities of New York, Albany, Troy and Rochester.—*Roch. Daily Adv.*

Apple jelly.—The apples are to be pared, quartered, the core completely removed, and put into a pot without water, closely covered, and placed in an oven over a fire. When pretty well stewed, the juice is to be squeezed out through a cloth, to which a little of the white of an egg is to be added, and then the sugar. Skim it previously to boiling, then reduce it to a proper consistency, and an excellent jelly will be the produce. *Ib.*

EXTRACT OF A LETTER FROM MR HARVEY JOHNSON, OF HOLLAND, COUNTY OF ERIE.

[It is not my intention to tax the reader with all the details of the history of silk, nor even of its first introduction into this country; but there is something so interesting, at least to me, in the plain unstudied style of Mr Johnson, added to the circumstance that the facts he relates were mostly known to me at the time (for I am some years his senior, and was brought up near the same neighborhood), that I cannot deny myself the pleasure of publishing part of his letter. I would now give more for his gloves than for any other pair in existence. — *Ed. Silkworm.*]

Dear Sir — Although a stranger, I take the liberty to address you on a subject which I have long considered of incalculable importance to our country — I refer to the subject of silk. My introduction will be an awkward piece of work, as I must assume the character of the egotist.

My native place is New Haven, Ct. Some fifty years ago, my father set out about two thousand white mulberry trees, from which a great quantity of silk was made (I mean a great quantity for that day). He carried on the business for a number of years. He raised a great many worms himself, and let his trees to several individuals, and had a certain part of the raw silk. My father's family consisted of eight children, five daughters and three sons. They were not all of them able to do much towards picking leaves, &c. but with a little help from the apprentices (for my father was a mechanic) occasionally, they managed the business so as to feed a great many worms. I think he kept one year over two hundred thousand. This was an unfavorable year (I think it was 1794); a late frost killed the leaves after the worms had hatched, or at the time they were hatching, so the growth of the worms was much backened by lack of leaves. Some individuals had to go into the woods, and gather wild leaves; but the balls were not so large and solid as in good years.

It is not worth while to mention all the particulars which occur to mind; but every thing relating to the business was done to great disadvantage. My father's land lay in detached pieces; one large orchard was one and a half miles off. It was difficult to find workmen who understood dyeing, weaving, or manufacturing any way. Still we made a number of pieces of cloth for women's and men's wear, one piece of handkerchiefs, and a number of pairs of stockings, some knit and some wove, and some pairs of gloves. I have yet a pair of the gloves, which were made, I believe, thirtyfive years ago, which I prize very highly.

RECEIPTS.

Ottar of roses.—The royal society of Edinburgh received from Dr Monro the following account of the manner in which this costly perfume is prepared in the East. Steep a large quantity of the petals of the rose, freed from every extraneous matter, in pure water, in an earthen or wooden vessel, which is exposed daily to the sun, and housed at night, till a scum rises to the surface. This is the *ottar*, which carefully absorb by a very small piece of cotton tied to the end of a stick. The oil collected, squeeze out of the cotton into a very diminutive vial, stop it for use. The collection of it should be continued whilst any scum is produced.

Essence de jasmin.—The flowers are stratified with wool or cotton, impregnated with oil of behu, or nut oil, in an earthen vessel, closely covered, and kept for some time in a warm bath; this is repeated with fresh flowers, until the oil is well scented; the wool, &c. is then put into a sufficient quantity of spirit of wine, and distilled in balneum mariæ.

The best honey water.—Take of coriander seeds a pound, cassia, 4 oz., cloves and gum benzoin, each, 2 oz., oil of rhodium, essence of lemon, essence of bergamot, and oil of lavender, each, 1 drachm, rectified spirit of wine, 20 pints, rose water, 2 quarts, nutmeg water, 1 quart, musk and ambergris, each, 12 grains. Distill it in a water bath to dryness.

Another method.—Put 2 drachms each, of tincture of ambergris, and tincture of musk, in a quart of rectified spirits of wine, and half a pint of water: filter and put it up in small bottles.

Eau de bouquet.—Take of sweet scented honey water 1 oz., eau sans pareille, 1 1-2 do., essence de jasmine, 5 drachms, syrup of cloves and spirit of violets, each, 4 dr., calamus aromaticus, long rooted cyperus, lavender, each, 2 do., essence of neroli, 1 scruple. Mix. Some add a few grains of musk and ambergris: it is sweet-scented, and also made into a ratafia with sugar.

Cure for the dysentery.—A table spoonful of vinegar, and a tea spoonful of salt, mixed with a gill of warm water. If relief be not afforded in ten or fifteen minutes, repeat the dose.

Popular error.—*There is alcohol in every thing.*—Such is the remark often made by those who would parry the force of appeals that are made to them on the subject of temperance. Alcohol, they say, is diffused through every substance which God has made, and this is evidence that he designs it should be used. But unfortunately for the argument, they are entirely mistaken as to the fact. When God looked upon the world he had made, and pronounced it very good, *there was not a particle of alcohol in existence.* It was not till the work of death commenced, and some portion of

matter, *in a state of decay*, had undergone the process of fermentation, that alcohol was formed. True, the constituent materials exist in almost every created substance; but being there mingled in such proportions as God designed, they are adapted to the use and sustenance of the beings he formed. But by the mysterious and wonderful operations of nature, that change in the proportion and arrangement of these materials, that takes place during the process of fermentation, converts what was before a healthy article of food into a deadly poison. Naturally, there is alcohol in nothing.

Another.—Common bread is fermented before baking. It must therefore contain alcohol, and to act consistently with the new principle of temperance societies, we must debar ourselves from the use of bread unless we can be contented with that which is unleavened. Investigate a little further, and the objection will vanish. True the dough is fermented preparatory to baking, and alcohol is formed; *but it is evaporated by the heat of the oven.* The process of baking and that of distilling, are exact counterparts to each other. In each case, the materials are prepared for the process by fermentation, and the consequent formation of alcohol. In each case the alcohol is separated from the nutriment. But there is this important difference:—*the Distiller throws away the nutriment and reserves the poison; the Baker drives off the poison and reserves the nutriment.*—[Maine Temp. Her.

GLOUCESTER CHEESE.

In the preparation of this cheese, the milk is, in the first instance, put into a cheese-cowl (which is a large deep tub) with two teacupsful of rennet. A ball of annatto is then dipped in the milk, and rubbed on a piece of pantile, which is washed into the milk till the color is as high as required. The quantity of annatto is regulated by the wishes of the cheesefactor, some liking more than others. Originally only a small quantity was employed, to induce the belief that the cheese was rich, and to prevent its being discovered that skimmed milk had been used. But now almost all the cheese is highly colored; and the color is no criterion of the goodness of the article. After an hour has elapsed, the milk is converted into curd; this is cut with a cheese-knife, which is about fourteen inches in length, and has two edges: it is cut gently at first, and then very small. It is suffered to remain ten minutes, when the milkmaid puts her arms into the cowl, and draws the curd gently towards her, turning it over in the whey. She afterwards draws it again towards her to dip out the whey, which is strained through a seive, and the small pieces of curd that are strained from it are returned to the cowl. The curd is then put into vats, in which cloths had been previously laid. The vats are placed one on another, and put in a cheese press for ten minutes, a vessel having previously been placed underneath the press to catch the expressed whey. After this, the curd is taken out of the vats and broken small, and some hot whey is poured over it. The curd is then drawn to the side of the cowl to drain from the whey, which is ladled off and strained so that no curd may be wasted. Then the curd is again put into the vats, and they are pressed one on another; any curd that is pressed over the edges of the vats being put in the middle of the vats to make the mass as firm as possible. In an hour the vats are taken out of the press to have dry cloths, after which they remain in the press till night, when the compressed curd is taken out of the vats, turned and salted, and then replaced in the press, and there remains till morning, when it is salted, and also again the following evening. The second morning the cloths are taken off, but the cheeses are left in the vats seven or eight days, being turned night and morning. After that, they are put on the floor of the cheese-loft, (which is a large room on purpose for keeping cheese,) and turned every day for three weeks or a month. In two months the cheeses are scraped and painted. The paint is a red powder, which is strewed over the cheeses and rubbed on them with the hand. In three months, they are what is technically called "ready," and are fit for the cheese-factor.

The whey that drained from the curd, during the process of cheese-making, is put into trendles (a sort of tub) and suffered to remain till the next day, when it is skimmed. From this, whey butter is made, and the residue is given to pigs. The rennet is made by mixing salt and water till it will support an egg, and then boiling it half an hour. When it is cold, four calves' stomachs are put to a gallon of the brine, with bay leaves and slices of lemon. In six weeks it is fit for use.

For single Gloucester cheese, the vats, which are made of elm, are thirteen inches in diameter, and about two inches and a half in depth: for double Gloucester cheese, the same diameter, and twice, or more than twice the depth. All the dairy utensils, after being used, are washed with tepid water, and then scalded. In making the double Gloucester cheeses, and those that are called "truckles," the same method is pursued, except that more care is used in pressing the curd into the vats, which, for such cheeses, have three perforations to let the whey drain off; and bandages of cheese-cloth are put round when the curd is above the vat. Sage cheese is made by pounding sage and straining the juice into a pail of milk, to which rennet is then added. The same process is observed as for other cheese till the time when the warm whey should be poured upon it, when it is broken up with as much of the simple

curd as the milk-maid considers necessary, and treated as other cheese. To make the richest cream-cheeses, the thickest cream must be taken, and put, with a little salt, into a straining-cloth, which is hung twelve hours, in order that the whey may drop from it. When it is taken from the cloth, it is put between two pewter-plates, with a weight on the upper one, and turned daily du ring five or six days. These cheeses can only be made in this manner in warm weather. The milk that the cows give when they are first turned into the fields in the spring, and when they are afterwards pastured in fields that have been newly mown, yields nearly as much curd again as at any other period; and it is also much richer. The principal season for making the thin cheese is from April to November; and that for making the thick, May, June, and the beginning of July.

In different districts, the produce of cows differs very much; but in the vale of Gloucester, from 3 1-2 to 4 1-2 cwt. per cow is considered a fair annual average return. The same cow, on different pastures, will yield milk of very different qualities; from one will be made rank and unpleasant cheese, while the other will be fine and rich. An estimate of the profit and expenses of a farm for twenty cows can be, from the continual variation in the state of the times and local circumstances, of course only an approximation towards the truth. But the following, made in the vale of Gloucester in 1835, where the land is rich and excellent, is as accurate an annual average as the nature of the subject will admit:—

Rent of 40 acres, at 50s. for pasture,	£100	0	0
" 20 acres for hay,	50	0	0
" 2 acres of arable, for potatoes,	5	0	0
Making hay, 12s. an acre,	12	0	0
Carrying and ricking,	2	10	0
Expenses of raising potatoes and seed,	15	9	0
Tithes, 3s. 6d. in the pound,	27	2	6
Poor and other rates, 3s. 9d. in the pound,	29	2	11
Dairymaid, 7*l.* a year (besides board)	7	0	0
Dairyman, at 7*l.* a year (besides board)	7	0	0
Wear and tear of dairy utensils,		10	0
Salt,		10	0
Annatto, 4s. a-pound,	1	0	0
Rennet and paint,	1	4	0
Interest of money laid out in stock and implements, reckoning each cow at from 8*l.* to 10*l.* and the chance of loss,	20	0	0
Profit,	87	11	7
	£366	0	0
Cheese 4 tons, at 4 cwt. each cow, and at 49s. per cwt.	176	0	0
Value of whey,	20	0	0
Pasture of colts and sheep,	20	0	0
Profit of calves,	30	0	0
Butter,	90	0	0
Pigs,	5	0	0
Potatoes,	25	0	0
	£366	0	0

The capital necessary for the purchase of stock for such a farm would, according to present prices, be about 300*l.*; but as it is not prudent that the whole of the capital should be expended, a man who had only that sum should take a smaller farm, and reserve a part for the payment of work-people, and other incidental expenses which would be required before much profit was derived from the farm. From the depressed state of agriculture, the present time is not by any means auspicious for the commencement of business as a dairy farmer. The requisite dairy utensils will cost about 25*l.*—*London Penny Magazine.*

Fruit. Why are some fruits improved in sweetness by drying or half withering on the trees?

Because their watery parts thus exhale, and the sugar is virtually increased in quantity.

Why should grapes hang on the vine until they are perfectly ripe?

Because unripe bunches never get any riper after they are gathered.

Why should grapes be eaten soon after they are gathered?

Because, unlike other fruits, grapes do not improve in flavor after gathering.

Why should the crowns be removed from ripe pine-apples?

Because, when suffered to remain, they live upon the fruit till they have sucked out all the goodness.

Why does an apple, when cut, first appear white, and after a time brownish?

Because a fermentation arises from the rest of the fruit absorbing the oxygen of the atmosphere; the apple having previously been, by its tough skin, protected from the contact of the air.—*Donovan.*

Why are certain apples called russetings?

Because of their russet or reddish brown color.

Why should raspberries be eaten from the bush?

Because their flavor is the most fleeting of all fruit. Even a few hours will diminish it, and on the bush the flavor does not continue above two or three days after the fruit is ripe. If kept for two or three days when gathered, the flavor is almost entirely gone.

Why are chestnuts best preserved through winter in sand?

Because if there be any maggots in the chestnuts, they will come out, and work up through the sand to get air.

Why is fern preferable to straw for the bed between the layers of fruit?

Because it does not impart that musty flavor which is so often produced by the straw.

Why are the autumnal fruits, as plums, pears, &c., more crude and indigestible than those of summer?

Because, in part, of the state of the constitu-

tion. Thus, at the commencement of summer, the system is more nerved and braced by the atmosphere of winter and spring, and by the dryer food which necessity obliges us to take at those seasons; so that the cooling fruits of summer are wholesome from their opening the bowels, &c. But it is not wonderful that a continuance of watery and inutritious food like fruit, should, towards the autumn, produce debility in constitutions partly predisposed to it, by the continual and relaxing heat of the summer months.—*Knowledge for the People.*

SOWING M LBERRY SEED.

The following "directions for sowing the seed and raising the plant of the White Italian Mulberry Tree," are given by Mr Robert Sinclair, Jr., one of the proprietors of the Farmer and Gardener, a valuable agricultural paper published at Baltimore. They will be found useful to those who are commencing operations. All that is necessary is to manure the land well, sow good seed, water the plants should the season be dry, and keep them free of weeds by the frequent use of the hoe, and we will warrant a good growth, without charging any premium.

1. To sow an ounce of seed, prepare a bed 30 feet long and 4 broad. Manure it *well*, dig *deep*, pulverise finely, and then lay the bed off in drills 12 inches apart, 1-4 or 1-2 of an inch deep; sow the seed as thick as you would onions or parsnips; cover with rich mould, press the mould down gently, but sufficiently to cause the seed to come into contact with the earth; and should the weather be dry, water the seed bed every other evening; it will assist in promoting the germination of the seed and vigorous growth of the plant.

2. Keeps the beds clean of weeds; and should they receive an occasional watering with suds or soot and water, say once a week after they are up if planted this month, August, they will be fit to transplant into nursery rows in April next, or if not desirable to be so removed, they may be permitted to remain until the ensuing spring, care being taken to keep the bed clean of weeds, the earth stirred, and watered in dry seasons.

3. The second year, if not removed before, the plants must be removed into the nursery rows, which must be prepared as for any other crop. The ragged roots being taken off, and the tap root shortened, the plants must be planted out twelve inches apart in rows three feet apart, the earth to be well trodden around the plant. As before, the earth must be kept open and free from weeds.

4. At two years old, the plants may be planted out into hedges, at 18 inches apart, in rows six feet wide. The ground should be prepared as before directed, and some good rich mould put into the holes, to be pressed around the plant. If intended to be planted out as standard trees, 20 feet square apart would be a good distance; but in that case the plants should not be transplanted until they are about an inch in diameter. In either case they will require trimming and topping, and if kept as hedges, should be treated as other hedges are.

[From the N. Y. Commercial Advertiser.]

Mansion House, Poughkeepsie,
August 31st, 1835.

The culture and manufacture of silk is now a subject of domestic economy which is engrossing much of the public attention; and I doubt not you will be gratified to learn, as will the friends of American industry generally, that the citizens of Dutchess are making extensive preparations for adding this to the other productive employments of the county. While engaged in his official duties at Washington, last winter, Mr Senator Tallmadge became acquainted wlth Mr Gamaliel Gay, of Rhode Island, a gentleman well-skilled in the silk manufacture, who was exhibiting in the federal capitol certain improved machinery of his own, for the reeling and weaving of silk. Mr Gay seemed to understand the subject thoroughly, and his machinery was so perfect, according to a report of a committee of the house of representatives, as to bring within a single view the whole process of the art, from the reeling of the cocoons, to the completion ot the most substantial and beautiful fabrics. After having looked into the subject for his own satisfaction, and becoming convinced of the excellent adaptation of the climate and soil of Dutchess for the growth of the mulberry, Mr Tallmadge arrived at the conclusion that the culture of silk might speedily be rendered of vast account in the productive industry of the county. At his instance, therefore, Mr Gay visited Poughkeepsie in the spring, and the result of consultation and enquiry, was the speedy formation of a company to enter at once upon this interesting branch of manufactures. The reader need not suppose that they were to wait for the planting and growing of the tree from which the worm spins its gossamer thread. There were already a sufficient number of the white mulberry trees planted and in vigorous growth, to show that there need not, and would not long be a lack of the rich material, when a demand should be created for it. The erection of a manufactory was therefore commenced, and orders sent to the silk-growing countries of Europe for the raw article wherewith to begin the manufacture. The edifice erecting is of brick, four stories high, and 36 by 100 feet in its dimensions. It is situated near the grounds of the whaling company, not many rods from the river, and will derive its water power from the

Fallkill. The builders are now engaged upon the fourth story; and executed orders from Europe will return by the time the building is completed, and the machinery adjusted for operation. Since the exhibition of his machinery in Washington last winter, Mr Gay has perfected a power loom for the weaving of silk — the first and only one in the world. Such a machine has long been a desideratum; and that it has been attained we have the positive evidence of a piece of silk, of beautiful texture, before our eyes, wove by Mr Gay.

The gathering of the leaves of the mulberry, nd the whole process of rearing and feeding the worms, and taking care of them until the production of the cocoons, will of course devolve upon the females and children of the county. Nor will this branch of business interfere with the other labors of a farm, or diminish its ordinary products. The planting and rearing of the mulberry trees, will require no more labor or attention than a fruit orchard; and as with fruit trees, the ground can be simultaneously tilled for other crops. All the silk, therefore, that can be produced, will form so much clear increase to the farmer's income.

Neglect of the mulberry.—We regret to discover the manifestation of a disposition, in many places, to neglect the cultivation of the white mulberry. There is no doubt the foliage of the Chinese mulberry is altogether superior to that of the white, and that the tree is to be preferred, on all accounts, provided it will endure the severity of the climate. That this will ultimately be the case by acclimation, we hope and believe; but we can not say that we are without our fears. The extensive destruction of the Chinese mulberry the last winter, we do not consider as deciding the question against its ability to withstand our ordinary winters. The last winter was uncommonly severe, and many of our most hardy indigenous trees and shrubs were destroyed root and branch. But notwithstanding the extreme cold, some of this variety of the mulberry survived it even in locations peculiarly unfavorable. We hope, therefore, it will finally succeed; but it is a dictate of common sense not to exchange certainties for uncertainties. We know from the experience of half a century, that the white mulberry is adapted to our climate, and that from its foliage silk of an excellent quality and liberal product may be made, and it is certainly the dictate both of wisdom and economy, to hold it in reserve should the Chinese fail.

Our plan, as practical culturists, is to multiply the white mulberry as fast as possible, and at the same time endeavor to acclimate the Chinese. Should we succeed, and render our white mulberries unnecessary for foliage, they will still be valuable for timber and fuel. But, on the contrary, should we be disappointed in our hopes and expectations with respect to the Chinese, we shall still be enabled to prosecute the culture of silk with success and profit. We hope, therefore, the most sanguine believer in the Chinese variety will not neglect to cultivate the white, until the question is settled beyond the possibility of a doubt. It appears to us that the success of the whole enterprise would be jeoparded by any other course of procedure; and as we ardently desire its success, we would earnestly entreat our fellow culturists to guard against such a result.

The Morus Alba, or White Italian Mulberry.—The Baltimore Farmer and Gardener states, that 'in order to make assurance doubly sure, he would recommend to persons who have sown seed of this tree, the present season, to cover their plant beds as soon as winter sets in, either with straw or long stable manure, to be confined by a slight covering of small brush-wood, which should be permitted to remain on the beds until about the middle of April, when it should be gradually removed, so as not to expose the plants too suddenly to the changes of the weather at that unsettled season of the year. This precaution will not be necessary after the first winter.' The seed of this mulberry may be had of Robert Sinclair, Jr. in Baltimore, which the editors of the F. and G. recommend 'as being fresh, having seen some of it tried, and sprouted in about 36 hours.'

Hampshire Gazette.

Profits of the mulberry.—A gentleman in New York, who has devoted much time and attention to the planting of mulberry trees, gives a statement from two acres, which divided, will give the following for one acre.

One acre of ground fenced by mulberry hedges and set out with trees, . .	$250 00
Interest and additional expense during five years, ...	187 50
	$437 50

The acre will then produce—

From 5 to 10 years, 10 per cent.
" 10 to 15 " 47 "
" 15 to 20 " 112 "

averaging nearly 45 per cent. for the first 20 years, and continue at 112 per cent. afterwards. The culture of silk is becoming so profitable that it would seem advantageous for farmers generally, to give it their attention.—*N. Bed. Gaz.*

The spirits of turpentine applied to milkweed, burdock and Canada thistle, the quantity of a teaspoonful at a time, will run down and destroy them to the ground; if not at once, repeat it.

Morus Multicaulis.—It has been a question among culcurists whether this plant was a distinct species of the Mulberry, or only a variety of the White. In regard to the Multicaulis introduced here by Mr Whitmarsh, and of course most in the country, it is found by him that the seed does not produce the like plant, but an inferior one, more resembling the common White Mulberry. This favors the opinion of the French culturists that it is a variety merely. Of course growers cannot trust to the seed, but must propagate by layers, cuttings, grafts, and transplanting. On the other hand, it is confidently said that the seed imported last year from China as the Morus Multicaulis, and extensively distributed, by Dr Stebbins, is a distinct species and may be raised from the seed, and is undoubtedly far superior to the common white, if not the genuine Multicaulis. All the plants of the Multicaulis now existing in this country or in Europe, were propagated from two plants which originally were purchased by a French botanist, at the Phillippine Islands, were they were introduced from China. On his passage homeward he found that they were very easily multiplied by cuttings, and on his arrival had great numbers for distribution.—*Hampshire Gazette.*

Mr John Lombe, and the Silk-Throwing Machinery at Derby.

The Lombes were originally manufacturers at Norwich, but removed to London, and became silk throwsters and merchants there. There were three brothers, Thomas, Henry, and John; the first was one of the sheriffs of London at the accession of George II. in 1727, on which occasion, according to custom, the chief magistrate was created a baronet, and Mr Lombe was knighted. The second brother, who was of a melancholy temperament, put an end to his existence before those plans were developed which connected the name of Lombe with one of the most important manufactures of the country.

The Messrs Lombes had a house at Leghorn, under the firm of Glover and Unwin, who were their agents for purchasing the raw silk which the Italian peasantry sold at their markets and fairs to the merchants and factors. There were many other English houses at Leghorn, Turin, Ancona, and other parts of Italy, chiefly for exporting silk to England, in part return for which numerous cargoes of salt fish were and still are received from our ports for the consumption of the Italians during their Lent and other fasts. It was at that time customary for the English merchants engaged in the Italian trade to send their apprentices and sons to the Italian ports, to complete their mercantile education, by acquainting themselves on the spot with the details of their peculiar line of business. It was professedly in compliance with this custom, but with a deeper ulterior view, that the youngest of the brothers, Mr John Lombe, who at that time was little more than twenty years of age, proceeded to Leghorn in the year 1715.

The Italians had at that time become so much superior to the English in the art of throwing silk, in consequence of a new invention, that it was impossible for the latter to bring the article into the market on equal terms. This state of the trade induced the Lombes to consider by what means they might secure the same advantage which their improved machinery gave to the Italians; and the real view of the younger brother, in proceeding to Italy, was to endeavor to obtain such an acquaintance with the machinery as might enable him to introduce it into this country. The difficulties in the way of this undertaking were very great, and would have appeared insurmountable to any but a person of extraordinary courage and perseverance. We find these difficulties thus stated in the paper which Sir Thomas Lombe printed for distribution among the members when he applied to Parliament for the renewal of his patent. One at least of these printed papers has been preserved, and has been lent us for the present occasion. It is there said, that "the Italians having, by the most judicious and proper rules and regulations, advanced and supported the credit of the manufacture, have also, by the most severe laws, preserved the mystery among themselves for a great number of years, to their inestimable advantage. As, for instance, the punishment prescribed by one of their laws for those who discover, or attempt to discover, any thing relating to this art, is death, with the forfeiture of all their goods, and to be afterwards painted on the outside of the prison walls, hanging to the gallows by one foot, with an inscription denoting the name and crime of the person; there to be continued for a perpetual mark of infamy."

The young Lombe, however, was not to be deterred by the danger and difficulty of the enterprise. On his arrival, and before he became known in the country, he went, accompanied by a friend, to see the Italian silk works. This was permitted under very rigid limitations. No person was admitted except when the machinery was in action, and even then he was hurried through the rooms with the most jealous precaution. The celerity of the machinery rendered it impossible for Mr Lombe to comprehend all the dependencies and first springs of so extensive and complicated a work. He went with different persons in various habits, as a gentleman, a priest, or a lady, and he was very generous with his money; but he could never find an opportunity of seeing the machinery put in motion, or of giving to it that careful attention which his object required. Despairing of obtaining adequate information from such

cursory inspection as he was thus enabled to give, he bethought himself of associating with the clergy, and being a man of letters, he succeeded in ingratiating himself with the priest who confessed the family to which the works belonged. He seems to have opened his plans, partly at least, to this person, and it is certain that he found means to obtain his co-operation. According to the scheme which they planned between them, Mr Lombe disguised himself as a poor youth in want of employment. The priest then introduced him to the directors of the works, and gave him a good character for honesty and diligence, and described him as inured to greater hardships than might be expected from his appearance. He was accordingly engaged as a fillatoe-boy, to superintend a spinning engine so called. His mean appearance procured him accommodation in the place which his design made the most acceptable to him, — the mill. While others slept, he was awake, and diligently employed in his arduous and dangerous undertaking. He had possessed himself of a dark lantern, tinder box, wax candles, and a case of mathematical instruments: in the day time these were secreted in the hole under the stairs where he used to sleep; and no person ever indicated the least curiosity to ascertain the possessions of so mean a lad. He thus went on making drawings of every part of this grand and useful machinery; the priest often inquired after his poor boy at the works, and through his agency Lombe conveyed his drawings to Glover and Unwins; with them models were made from the drawings, and despatched to England piecemeal in bales of silk. These originals are still, we believe, preserved in the Derby mills.

After Lombe had completed his design, he still remained at the mill, waiting until an English ship should be on the point of sailing for England. When this happened, he left the works and hastened on board. But meanwhile his absence had occasioned suspicion, and an Italian brig was despatched in pursuit; but the English vessel happily proved the better sailer of the two, and escaped. It is said that the priest was put to the torture; but the correspondent of the "Gentleman's Magazine," to which we are indebted for most of the facts we have stated, says that after Mr Lombe's return to England, an Italian priest was much in his company; and he is of opinion that this was either the priest in question, or at least another confederate in the same affair. Mr Lombe also brought over with him two natives accustomed to the manufacture, for the sake of introducing which he had incurred so much hazard.

After his return, Mr John Lombe appears to have actively exerted himself in forwarding the works undertaken by him and his brother, Sir Thomas, at Derby; but he did not live to witness their completion. He died on the premises, on the 16th of November, 1722, in the 29th year of his age. The common account of his death is, that the Italians, exasperated at the injury done to their trade, sent over to England an artful woman, who associated with the parties in the character of a friend; and having gained over one of the natives who originally accompanied Mr Lombe, administered a poison to him of which he ultimately died.

We recur to Sir Thomas Lombe's statement, already quoted, for the most authentic particulars respecting the progress of the work. The document itself is entitled, "A Brief State of the Case relating to the Machine erected at Derby, for making Italian Organzine Silk, which was discovered and brought into England, with the utmost difficulty and hazard, and at the sole expense of Sir Thomas Lombe." It commences with stating the capabilities of the machine. "This machine performs the work of making Italian organzine silk, which is a manufacture made out of fine raw silk, by reducing it to a hard twisted, fine, and even thread. This silk makes the warp, and is absolutely necessary to mix with and cover the Turkey and other coarser silks thrown here, which are used for shute; so that without a constant supply of this fine Italian organzine silk, very little of the said Turkey and other silks could be used, nor could the silk-weaving trade be carried on in England. This Italian organzine (or thrown) silk has in all times past been bought with our money, ready made (or worked) in Italy, for want of the art of making it here; whereas now, by working it ourselves out of fine Italian raw silk, the nation saves nearly one-third part; and by what we make out of fine China raw silk, above one-half of the price we pay for it ready worked in Italy." The paper goes on to state, that "the machine at Derby has 97,746 wheels, movements, and individual parts, (which work day and night,) all which receive their motion from one large water wheel, and are governed by one regulator; and it employs 300 persons to attend and supply it with work." After stating the difficulties which had been surmounted in introducing this improvement, the paper thus concludes: "Upon the introduction of which [this improvement], his late most gracious Majesty granted a patent to the said Sir Thomas Lombe, for the sole making and use of the said engines in England, for the term of fourteen years. Upon which he set about the work and raised a large pile of building upon the river Derwent at Derby, and therein erected the said machine; but before the whole could be completed several years of the said term were expired. Then the King of Sardinia, in whose country we buy the greater part of our supply of organzine silk, being informed of his success, prohibited the

exportation of Piedmontese raw silk; so that before the said Sir Thomas Lombe could provide a full supply of other raw silk proper for his purpose, alter his engine, train up a sufficient number of work-folk, and bring the manufacture to perfection, almost the whole of the said fourteen years were run out. Therefore, as he has not hitherto received the intended benefit of the aforesaid patent, and in consideration of the extraordinary nature of his undertaking, the very great expense, hazard, and difficulty, he has undergone, as well as the advantage he has hereby procured to the nation at his own expense, the said Sir Thomas Lombe humbly hopes the parliament will grant him a further term for the sole making and using his engines, or such other recompense as in their great wisdom shall seem meet."

The Parliament considering the matter of much public importance, thought it best to give him a grant of £14,000, on condition that the invention should be thrown open to the trade, and that a model of the machine should be deposited in the Tower of London for public inspection.

MORUS MULTICAULIS.

JOSEPH DAVENPORT, of Colerain, Mass. offers for sale 16,000 trees of the Morus Multicaulis, or Chinese Mulberry, being a part of his trees cultivated at Colerain and at Suffield, Ct., 16 miles north of Hartford, one mile from the river. The trees are from 2 to 5 feet high. Price according to size, from 25 to 30 dollars per hundred. Were propagated from trees that endured the last severe winter unprotected. Purchasers will be furnished with a knowledge of its culture and suitable soil, which, if attended to will ensure it without protection against the severity of our climate. Trees will be carefully packed and forwarded by land or water to any part of the country. Orders received by mail will receive prompt attention. Colerain, Oct. 5, 1835

CHOICE DOUBLE LARKSPUR SEED.

For sale in packages of 12½ cts. each, the most beautiful Delphinium ajacis fl. pleno, ever flowered in this country, the trusses of flowers are above a foot in length on a stately stem of near three feet, are as double as roses, in fact they more resemble Hyacinths and combine every shade of color. Seed flowers better that is sown in the fall.

GEO. C. BARRETT.

LUSTRE FLOWER POTS.

For sale at the New England Farmer Office, beautiful Super Superb Flower Pots.

BREMEN GEESE.

For sale at the Agricultural Warehouse Bremen Geese and Muscovy Ducks. GEO. C. BARRETT.

GARDEN SEEDS, TREES, &c.

The subscriber is daily receiving a supply of *Garden Seeds*, growth of 1835, and will execute orders from the South at short notice, for SEEDS of the greatest variety, raised in gardens connected with the *Agricultural Warehouse and New England Seed Store*, Boston, and warranted of good quality.

BOXES OF GARDEN SEEDS containing an assortment neatly papered up in 6¼ cent papers supplied at a discount to Traders, also FRUIT AND ORNAMENTAL TREES, MULBERRY AND MORUS MULTICAULIS TREES.

Agricultural and Horticultural Books, New England Farmer (weekly a $2,50 per annum), Silk Manual (monthly at 50 cts. per annum), Horticultural Register at $2 per annum, published by GEO. C. BARRETT,

sep. 9. 1835. Boston.

MORUS MULTICAULIS.

For sale at the Agricultural Warehouse, 51 and 52 North Market street, any number of Trees of the Morus Multicaulis or Chinese Mulberry. These trees were propagated in this country. The superiority of the foliage of this tree as food for the silk-worm over all other, has repeatedly been tested, and is proved beyond a doubt. The price for Trees, from 4 to 5 feet high, is $30 per hundred, $4,50 per dozen, &. 50c single. Trees but 2 or 3, with good roots $25 per hundred.

GEORGE C BARRETT,
New England Farmer Office.

VALUABLE NEW WORK ON SILK.

American Silk Grower's Guide, is this day published at the office of the New England Farmer—being the art of growing the Mulberry and manufacture of Silk on the system of successive crops each season—by WM. KENRICK, author of the New American Orchardist; 112 pp. price 42 cents, neatly bound in cloth. Booksellers and traders supplied on favorable terms. GEO. C. BARRETT.

SPLENDID DUTCH BULBOUS ROOTS.

Just received from Holland a splendid collection of Bulbous Roots consisting of Hyacinths, Polyanthus, Narcissus, Crown Imperials, Gladiolus, Tulips, &c, &c.

Next week a Catalogue will be printed and the present is a rare opportunity for Florists to add superior varieties of Bulbous Flower Roots to their collection.

GEO. C. BARRETT.
New England Farmer Office.

SPLENDID BULBOUS ROOTS.

Just received at the New England Seed Store, an assortment of Bulbous Roots, comprising the finest varieties of Tulips, splendid variegated red, yellow and mixed, with the colors marked on each.

Hyacinths. Double and single, a fine assortment, with the colors marked on each. Also an assortment of fine double and single Hyacinths mixed without names.

Polyanthus Narcisus. Fragrant white with single cups, and extra sized roots.

We shall open in a few days a further supply of fine Bulbous Roots from Holland, among which will be bulbs of every kind and color, which will complete a superb assortment.

SCILLA PERUVIANA, a rare bulb, from the Archipelago; produces a splendid flower may be grown in pots or in the garden, perfectly hardy. Prices—50 cts. 25 cts and 12½ cts according to size.

TULIPS, a large and splendid collection, growing in the Horticultural Gardens connected with the New England Seed Store.

sep. 2.

GRASS SEEDS.

30 Casks Clover Seeds—prime quality, 10 do. Timothy; 100 Bushels Red Top; 500 lbs. White Clover.

For sale by GEO. C. BARRETT,
New England Seed Store.

AGRICULTURAL CHEMISTRY.

Chaptals Agricultural Chemistry, first American Edition, from the French. Just published, price $1,25.

sep. 9. GEO. C. BARRETT.

WHITE MULBERRY SEED, Growth of 1835.

Just received 50 lbs. of White Mulberry Seed growth of 1835, saved with much care from good, thrifty trees, expressly for the New England Seed Store. For sale by

GEORGE C. BARRETT.

N. B.—As the quantity will probably be inadequate for the demand the next season orders should be sent early.

July 29.

FARM FOR SALE OR EXCHANGE.

An excellent Farm containing 70 acres, situated in Marlborough, Mass., with a house and barn thereon, for sale, or would be exchanged for property in the city of Boston. For terms and particulars inquire of G. C. BARRETT at this office, or N. B. PROCTOR, Esq. of said Marlborough. 6m

BRIGHTON MARKET,—Monday, Oct. 5, 1835.

Reported for the Daily Advertiser & Patriot.

At Market, 5250 Cattle, (say 3600 Beef Cattle and 1650 Sores, 4000 Sheep, and 370 Swine.

Prices—*Beef Cattle*—Prices have further declined. A few yokes extra taken at 31s 6d; prime 29s a 30s; good 25s 6d a 28; two and three year old 16s 6d a 21s

Barrelling Cattle.—Dull. More were at market than we recollect ever seeing before at one time; they have also come too early. The barrellers offer for Mess 22s 6d, No 1 19s 6d, No 2 16s 6; but the drovers refuse to take less than 24s for Mess, 21s for No 1, and 18s for No 2. A large proportion remain unsold.

Stores—Dull. Yearlings $5 a 6 50; two year old 9 a 14; three year old 15 a 23.

Sheep—Ordinary at 10s, and 11s; middling 11s 6d, 12s, and 13s; better qualities 14s, 15s, 16s 6d, and 17s.

Swine—No old at market. Several lots of Shoats were taken at 4¼ for Sows, and 5¼ for Barrows; at retail, 5 for Sows and 6 for Barrows.

GARDENER WANTED.

At Nahant; for a man and his wife, for whom a separate cottage will be found, and the milk of a cow &c. The wife wanted to do washing of the family of the employer. Apply at 4 Pearl Street. 3t*

MORUS MULTICAULIS.

Fruit and Ornamental Trees.

Nursery of William Kenrick, Nonantum Hill in Newton, near Boston, and near the *Worcester Rail Road*. Selections of the finest varieties of New Flemish Pears,—also Apples, Cherries, Peaches, Plums, Nectarins, Almonds, Apricots, Grape Vines, Currants, Rasberries, fine imported Lancashire Gooseberries, Strawerries, &c.—

Morus Multicaulis, or Chinese Mulberry, by the single tree, the 100 or 1000—and Plantations for silk furnished at the reduced prices and reasonable rates.

12,000 Peach Trees of finest select kinds are now ready for sale.

Ornamental Trees and Shrubs, and Roses of about 1000 finest kinds,—Also Herbaceous flowering plants, Pæonies and splendid Double Dahlias.

The excellence of the varieties, the quality, the size, continually improve as the numbers are augmented. These now comprise nearly 400,000—covering compactly about 20 acres.

All orders left with Geo. C. Barrett, who is Agent, at his Seed Store and the Agricultural Warehouse and Repository, Nos. 51 & 52, North Market street, will be in like manner duly attended to.—Catalogues gratis, on application.

New England Farmer's Almanac For 1836.

☞Just published by JOHN ALLEN, & CO. Corner of Washington and School streets, up stairs, and by GEO. C. BARRETT at the Seed Store No 51 and 52, North Market Street, FESSENDEN'S NEW ENGLAND FARMER'S ALMANAC for 1836. For sale also by Booksellers, Shopkeepers, &c., generally.

This Almanac will be found one of the most interesting and amusing of the series, of which it composes No. VIII. It consists of the usual astronomical calculations, humorous poetical sketches of the months; observations and directions relative to the employment of the Farmer, which will be found appropriate to each month in the circle of the seasons, "*Agriculture and Rural Economy*," including cuts and descriptions of many of the most useful implements employed in tillage. Valuable Recipes; Husbandry Honorable, a pithy piece of paramount poetry. The Splendors of the Setting Sun, a poetical effusion; Aphorisms; Eulogy on the *Art of Agriculture*; Calendar of Courts, Roads, Distances, &c, &c.

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
Apples, new,	barrel	2 50	3 00
Beans, white,	bushel	1 87	2 00
Beef, mess, (new)	barrel	12 50	13 00
Cargo, No. 1.	"	11	11 50
prime,	"		
Beeswax, (American)	pound	22	24
Butter inspected, No. 1,	"	16	20
Cheese, new milk,	"	8	9
Feathers, northern, geese,	"	46	50
southern, geese,	"	42	44
Flax, American,	"	9	10
Flaxseed,	bushel	1 25	1 37
Flour, Genesee, cash	barrel	6 25	6 73
Baltimore, Howard street,	"	6 37	6 62
Baltimore, wharf,	"	6 75	6 87
Alexandria,	"	6 12	1 25
Grain, Corn, northern yellow	bushel	1 00	1 04
southern yellow	"	90	95
white,	"	95	
Rye, northern, none.	"	95	1 00
Barley,	"		
Oats, nor hern, (prime)	"	60	62
Hay, best English, per ton of 2000 lbs		22 00	25 00
eastern screwed,	"	16 00	17 00
hard pressed,	"	17 00	20 00
Honey, new,	gallon	37	42
Hops, 1st quality new	pound	16	18
2d quality	"		
Lard, Boston, 1st sort,	"	11	12
southern, 1st sort,	"	9	10
Leather, slaughter, sole,	"	19	20
do. upper,	"	12	14
dry hide, sole,	"	19	21
do. upper,	"	18	20
Philadelphia, sole,	"	27	29
Baltimore, sole,	"	25	27
Lime, best sort,	cask	1 05	1 08
Pork, Mass. inspect. extra clear,	barrel	20 50	21 00
Navy, mess,	"	16 00	16 50
bone, middlings,	"		
Seeds, Herd's Grass,	bushel	2 25	2 50
Red Top,	"	70	80
Red Clover, northern,	pound	9	11
White Dutch Honeysuckle,	"	25	03
Silk Cocoons, (American)	bushel	2 75	3 00
Tallow, tried,	cwt.	7 50	8 00
Wool, prime, or Saxony Fleeces,	pound	65	75
American, full blood, washed,	"	55	65
do. 3-4ths do.	"	50	55
do. 1-2 do.	"	37	42
do. 1-4 and common	"	40	45
Native washed	"	38	60
Northern pulled. Pulled superfine,	"	55	60
1st Lambs,	"	45	50
2d do.	"	33	38
3d do,	"	25	30
1st Spinning,	"	48	50
Southern pulled wool is generally 5 cts. less per lb.			

PROVISION MARKET.

RETAIL PRICES.

Hams, northern,	pound	12	13
southern, none.	"	11	12
Pork, whole hogs,	"	6½	6½
Poultry,	"	12	15
Butter, (tub)	"	18	20
lump	"	22	25
Eggs,	dozen	18	20
Potatoes, new,	bushel	50	75
Cider, new,	barrel	2 50	3 00

ORDERS FOR PRINTING RECEIVED BY THE PUBLISHER.